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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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09/210,539 12/14/98 ISHIBASHI

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LEWIS T STEADMAN  
HILL & SIMPSON  
85TH FLOOR  
SEARS TOWER  
CHICAGO IL 60606

IM62/0328

EXAMINER

EGWIM, K

ART UNIT

PAPER NUMBER

1713

DATE MAILED: 03/28/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/210,539

Applicant(s)

ISHIBASHI ET AL.

Examiner

Dr. Kelechi C. Egwim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 December 1998.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☒ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_\_.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

## Attachment(s)

- 14) ☒ Notice of References Cited (PTO-892)
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.

- 17) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 3/18/99 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. The IDS lists two non-patent documents that were not submitted for review. In addition, the non-patent documents are listed without a date. The IDS has been placed in the application file, but the information referred to therein has not been considered.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The language should be clear and concise and should avoid using phrases which can be implied, such as, "Disclosure is," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: ARTICLES FORMED FROM BIODEGRADABLE ALIPHATIC POLYESTER RESINS HAVING DISPERSED POLYLACTIC ACID.

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***Claim Objections***

4. Claim 1 is objected to because of the following informalities: There should be a comma between "polyethylene adipate" and "and a dispersed phase". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1-2 and 9-11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, 35 U.S.C. 103(a) as being unpatentable over Tsai et al. (USPN 5,910,545).

8. Claims 1-6 and 8-11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, 35 U.S.C. 103(a) as being unpatentable over Obuchi et al. (USPN 5,916,950).

In col. 1, lines 6-15, Tsai et al. teach fibers made from a biodegradable resin. In col. 4, lines 10-68 and col. 8, line 60 to col. 9, line 13, Tsai et al. teach the biodegradable resin to comprise of 0 to 100% of polylactic acid and 0 to 100% of a butylene succinate polymer, wherein, because the polymers form separate domains, the polymer in the greater quantity would constitute the continuous phase and the polymer in minimized quantities would constitute the discontinuous phase dispersed within the continuous phase. The biodegradable resin with the presently claimed composition is exemplified in col. 19 with samples 14 and 15 of table 3.

In col. 8, lines 25-35, Tsai et al. teach the biodegradable composition to further contain other particulate additives in order to enhance the processability of the composition.

In col. 4, lines 13-21, col. 6, lines 41-53, and col. 9, lines 3-45, Obuchi et al. teach a variety of articles, including tying material, made from a thermoplastic composition comprising a biodegradable resin containing 25-75% of polylactic acid and

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25-75% of a butylene succinate polymer. In col. 7, lines 24-34, Obuchi et al. teach the resin to further contain 0.1-70 parts of inorganic filler comprising talc. The biodegradable resin with the presently claimed composition is exemplified in preparation example 2, and example 11 of table 1, wherein the polylactic acid is described as being in the form of a pellet or powder.

While Tsai et al. or Obuchi et al. do not expressly disclosed the dispersed polylactic acid to be in the form of particles within the continuous phase of the formed article, the polylactic acid would intrinsically have been in the form of solid particulate, given the molecular weights. Further, while Tsai et al. or Obuchi et al. do not disclose the specific diameters of the dispersed polylactic acid, the particle diameters claimed by applicant would have been within the range of particle diameters for the dispersed polylactic acid in the prior art, given that the compositional ranges overlap in scope. As such, the compositions of Tsai et al. or Obuchi et al. are essentially the same as the claimed composition. In any event, an otherwise old composition is not patentable regardless of any new or unexpected utility or properties. See *Ex parte Lee*, 31 USPQ 2d 1105 (Bd. Pat. App. & Inter. 1993) or *In re Fitzgerald et al*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112 - § 2112.02 and § 2131.03.

Even if assuming that the prior art references do not meet the requirements of 35 U.S.C. 102, it would still have been obvious to one of ordinary skill in the art, at the time the invention was made, to arrive at the same inventive composition because the

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disclosure of the inventive subject matter appears within the generic disclosure of the prior art.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Obuchi et al. as applied to claims 1-6 and 8-11 above, and further in view of Yamada et al. (JP 09041220)

Obuchi et al., above, differ from the claimed invention in that the inorganic additive component is not disclosed to be calcium carbonate. However, it is known in the art to use calcium carbonate as a species of inorganic additives for the biodegradable polyester resin of Obuchi et al., such as taught by Yamada et al.

In the abstract, Yamada et al. teach inorganic additives for the biodegradable polyester resins to include calcium carbonate.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use calcium carbonate as an inorganic filler/additive in the biodegradable polyester resin of Obuchi et al. because 1) Obuchi et al. teach inorganic fillers, 2) Yamada et al. teach calcium carbonate as a species of inorganic filler/additive, and 3) one having ordinary skill in the art, at the time the invention was made, would have been motivated by a reasonable expectation of success to use calcium carbonate as an inorganic filler in the biodegradable polyester resin of Obuchi et al.

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10. Claim 3-8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai et al. as applied to claims 1-2 and 9-11 above, and further in view of Obuchi et al. and Yamada et al. above.

Tsai et al. differ from the claimed invention in that the biodegradable polyester resin is not disclosed as comprising an inorganic filler such as talc or calcium carbonate. However, it is known in the art to add an inorganic filler such as talc to a biodegradable polyester resin, for the purpose of reducing molding time and accelerating crystallization velocity in the molding operation, such as taught by Obuchi et al. above (See col. 7, lines 24-33).

It is also known in the art to use calcium carbonate as a species of inorganic filler for biodegradable polyester resins, such as taught by Yamada et al., above (See abstract)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to include an inorganic filler such as talc in the biodegradable polyester resin of Tsai et al. in order to obtain the advantages taught by Obuchi et al., motivated by a reasonable expectation of success.

In addition, one having ordinary skill in the art, at the time the invention was made, would have been motivated by a reasonable expectation of success to use calcium carbonate as an inorganic filler in the biodegradable polyester resin of Tsai et al. because Yamada et al. teach calcium carbonate as a species of inorganic filler.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kelechi C. Egwim whose telephone number is (703) 306-5701. The examiner can normally be reached on M-T (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are 305-3599 for regular communications and 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-8183.

KCE

KCE  
March 27, 2000



DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700